

802.11b

Wireless & Fast

Ethernet

USB Adapter

Quick Installation Guide

REGULATORY STATEMENTS

FCC Certification

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

Part 15, Class B

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the distance between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

CAUTION:

- 1) To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
- 2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Software Installation

Precaution for Windows 98SE, 2000, and ME users: You may install the Adapter's software before installing the hardware for saving your time.

Precaution for Windows XP users: It's not necessary to install the utility, since the device will use the built-in utility in Windows XP.

Installation the Utility under Windows 98SE/ME/2000

1. Insert the **Setup Utility CD-ROM** into the CD-ROM drive and double click on **Setup.exe** to install the Configuration & Monitor Utility.
2. When the Welcome screen appears, click **Next** to continue.
3. The **Choose Destination Location** screen will show you the default destination chosen by the utility. Click **Next** to continue.
4. Follow the instruction to select the program folder. Click **Next** to continue.
5. In **Start Copying Files**, click **Next** to continue.
6. In **Setup Status**, the InstallShield Wizard will begin copying the files.
7. After the Configuration Utility has been successfully installed, select **Yes, I want to restart my computer now**, and then click **Finish** to restart.

Hardware Installation

Installation of the USB Adapter for Windows 98SE/ME/2000

Automatically

Precaution for Windows 98SE, 2000, and ME users: If the Application setup in Installation the Utility under Windows98SE/ME/2000 has been completed, follow below steps to install the hardware.

For Windows 98SE users: As you perform the installation, have your system operating CD-ROM at hand. You may be asked to insert the OS CD-ROM for the system to download a specific driver.

1. Plug the square end (**Type B**) of USB cable into the adapter's USB port.
2. Plug the rectangle end (**Type A**) of USB cable into the PC's USB port.
3. Insert one end of your network cable into the RJ-45 network port. Connect the other end of the cable into a Hub.

After the device has been connected to your computer, Windows will detect the new hardware and then automatically copy all of the files needed for networking.

Precaution for Windows 2000 users: When **Digital Signature Not Found** screen appears, click **Yes** to continue.

Manually

If you want to install the Hardware before installing the utility, please follow the below section.

Under Windows 98SE

1. In **Add New Hardware Wizard**, click **Next**.
2. Click **Search for the best driver for your device (Recommended)**.
3. Insert the device driver CD-ROM into the CD-ROM drive. Select **Specify a location:** and click **Browse** to provide the appropriate path (e.g. D:\Win9xMe). Click **Next**.
4. Click **Next**, Windows will copy all the necessary files to your system.
5. Insert **Windows 98SE** CD-ROM.
6. Click **Finish** to continue.
7. When Windows prompts you to restart your computer, click **No**.
8. Repeat step 1-6.
9. When Windows prompt you to restart your computer, click **Yes**.

Then go to [Installation the Utility under Windows98SE/ME/2000](#) section for installing the utility.

Under Windows ME

1. Select **Specify the location of the driver (Advanced)**, click **Next**.
2. Insert the device driver CD-ROM into the CD-ROM drive. Select **Search for the**

best driver for your device (Recommended) and click **Browse** to provide the appropriate path (e.g. D:\Win9xMe). Click **Next**.

3. Click **Next**, Windows will copy all the necessary files to your system.
4. Click **Finish** to continue.
5. When Windows prompts you to restart your computer, click **No**.
6. Repeat step 1-4.
7. When Windows prompt you to restart your computer, click **Yes**.

Then go to [Installation the Utility under Windows98SE/ME/2000](#) section for installing the utility.

Under Windows 2000

1. In **Found New Hardware Wizard**, click **Next**.
2. In **Install Hardware Device drivers**, click **Search for a suitable driver for my device (Recommended)**.
3. Insert the device driver CD-ROM into the CD-ROM drive. Select **CD-ROM drivers** and **Specify a location**.
4. Click **Browse** to provide the appropriate path (e.g. D:\Win2kXP). Click **OK**.
5. Click **Next**, Windows will copy all the necessary files to your system.
6. Click **Yes** to continue the installation.
7. Click **Finish** to continue.
8. Repeat step 1-6.
9. Click **Finish**.
10. Restart your computer.

Then go to [Installation the Utility under Windows98SE/ME/2000](#) section for installing the utility.

Precaution for Windows XP users: You must install the Adapter's hardware first, and then go to [Installation of the USB Adapter for Windows XP.](#)

Installation of the USB Adapter for Windows XP

1. Once the device is well connected to your computer, Windows XP will automatically detect the new device. Click **Install from a list of specific location** and click **Next**.
2. Insert the **Setup Utility CD-ROM** into the CD-ROM drive. Select **Include this location in the search:** and click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **Next**.
3. Click **Continue Anyway** to proceed.
4. Click **Finish** to continue the Utility installation.
5. Wait for seconds. Windows XP will automatically detect the new hardware. Click **Install from a list or specific location (Advanced)** and click **Next**.
6. Select **Include this location in the search:** and click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **Next**.
7. Click **Continue Anyway** to proceed.
8. Click **Finish** to complete the Utility installation.

Configuration Procedure





Configuration and Monitor Utility for Windows 98SE/ME/2000

After installing the device successfully, go to **Start → Programs → 802.11 Wireless + USB 10&100 LAN → Configuration and Monitor Utility**.

The **Wireless LAN Monitor Utility** icon will appear in the taskbar every time the device is running. You can open it by double-clicking on this icon.



Icon Status

Mode	Icon	Link Status
Access Point mode		Red. The station is not associated to an Access Point.
		Blue. The station associates itself to an Access Point.
Peer-to-Peer mode		Red. The color is red only when the card is during resetting or initializing procedure.
		Blue. Peer-to-Peer mode is activated.

Note: Except for the following configuration utility, using Windows to configure the wireless network settings in the **Windows XP** is recommended. (Please skip to the [Configuration for Windows XP](#) section)

All settings are categorized into 6 tabs:

Monitor

Statistics

Site Survey

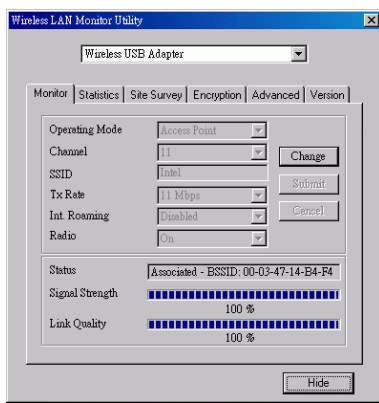
Encryption

Advanced

Version

Monitor

The Status tab will display the current status of the Wireless USB Adapter.

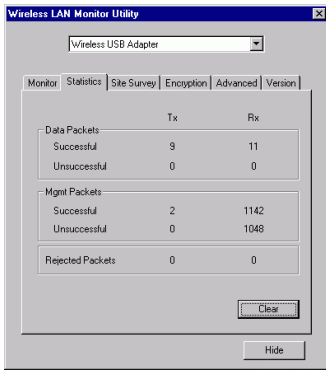


Item	Description
Operating Mode	It displays the current operating mode. (Access Point or Peer-to-Peer).
Channel	It shows the selected channel that is currently used. (There are 14 channels available, depends on the country.)
SSID	The SSID is the unique name shared among all points in your wireless

Item	Description
	network. The name must be identical for all devices and points attempting to connect to the same network. It shows the current SSID setting of the Wireless USB Adapter.
Tx Rate	It shows the current transfer rate. (1, 2, 5.5, or 11Mbps or Auto)
Int. Roaming	It displays the current roaming status. (Disabled or Enabled)
Radio	It displays the current status of the Wireless USB Adapter. (On or Off)
Status	It displays the information about the status of the communication (the BSSID of the Access Point to which the card is associated).
Signal Strength	It displays the signal strength of the connection between the Wireless USB Adapter and the Access Point it connects.
Link Quality	It displays the link quality of the connection between the Wireless USB Adapter and the Access Point it connects.
Change	Click Change to change the configuration parameters such as Operating Mode , SSID , Tx Rate , and Int. Roaming . (In Peer-to-Peer mode, Channel button is enabled).
Submit	Click Submit to save the changes.
Cancel	Click Cancel to ignore the previous setting.
Hide	Click Hide to exit the application.

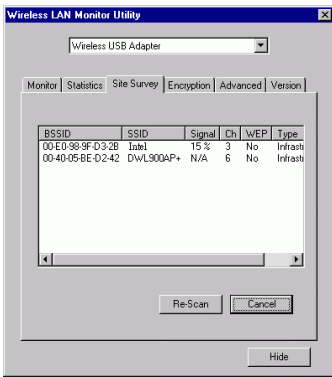
Statistics

This option shows you to view the available statistic information (**Data packets**, **Management Packets** and **Rejected packets**). Press the **Clear** button to renew or update this list of statistics.



Site Survey

The **Site Survey** tab shows all the available Access Points and their features.



Item	Description
BSSID	A set of wireless stations is referred to as a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSS ID.
SSID	The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network.
Signal	It displays the signal strength of the connection between the Wireless USB Adapter and the Access Point it connects.
Channel	It shows the selected channel that is currently used.
Encryption	It displays the status of WEP Encryption.
BSS	It displays the type of Basic Service Set. Access Point: allows the Adapter to communicate with a wired network which employing an Access Point. Peer-to-Peer: allows PC-to-PC, station-to-station communication without employing an Access Point.
Re-Scan	Search for all available networks. Clicking on the button, the device will start to rescan and list all available sites.
Cancel	Click Cancel to ignore the previous setting. (Do not press Cancel while Re-Scan is working.)
Hide	Click Hide to exit the application.

Encryption

WEP (Wired Equivalent Privacy) encryption can be used to ensure the security of your wireless network.

The screenshot shows the 'Wireless LAN Monitor Utility' window with the 'Encryption' tab selected. At the top, there is a dropdown menu for 'Wireless USB Adapter'. Below it are tabs for 'Monitor', 'Statistics', 'Site Survey', 'Encryption', 'Advanced', and 'Version'. The 'Encryption' section contains a dropdown menu for 'Encryption' set to 'Disabled'. Below this are four text input fields for 'Key #1', 'Key #2', 'Key #3', and 'Key #4', each with a placeholder 'XXXXXXXXXX'. Further down are three dropdown menus: 'WEP Key to use' set to 'Key #1', 'WEP Mode' set to 'Mandatory', and 'Authentication Type' set to 'Auto'. At the bottom right of the main panel is a 'Submit' button, and at the very bottom of the window is a 'Hide' button.

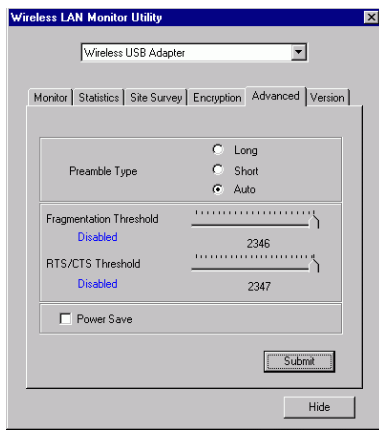
Item	Description
Encryption	WEP is a data privacy mechanism based on a 64-bit/128-bit shared key algorithm. Under the drop-down box, you can choose to have WEP encryption Disabled , 64 Bit , or 128 Bit .
Key1/Key2/ Key3/Key4	This setting is the configuration key used in accessing the wireless network via WEP encryption. To generate an encryption key: 1. Select 64 Bit or 128 Bit. 2. Click "Key1" or "Key2" or "Key3" or "key4" item, then fill in the appropriate value/phrase.
Default Key	You can specify up to 4 different keys to <i>decrypt</i> wireless data. Select the Default key setting from the pull-down menu.

Mode	<p>Two WEP modes are available as below: Mandatory and Optional.</p> <p>Mandatory: WEP Encryption is required to establish connection with other stations within the wireless network.</p> <p>Optional: Your station can communicate with other stations within the wireless network regardless if they use WEP or not.</p>
Authentication Type	<p>The authentication type defines configuration options for the sharing of wireless networks to verify identity and access privileges of roaming wireless network cards.</p> <p>You may choose between Open System, Shared Key, and Auto.</p> <p>Open System: If the Access Point is using "Open System" authentication, then the wireless adapter will need to be set to the same authentication type.</p> <p>Shared Key: Shared Key is when both the sender and the recipient share a secret key.</p> <p>Auto: Select Auto for the USB adapter to select the Authentication type automatically depending on the Access Point Authentication type.</p>
Submit	Click Submit to save the changes.
Hide	Click Hide to exit the application.

Note: You must use the same value/phrase or WEP key settings for all wireless computers in order for the wireless network to function well.

Advanced

You can change advanced configuration settings, such as the **Preamble Type**, **Fragmentation Threshold** and **RTS/CTS Threshold**.

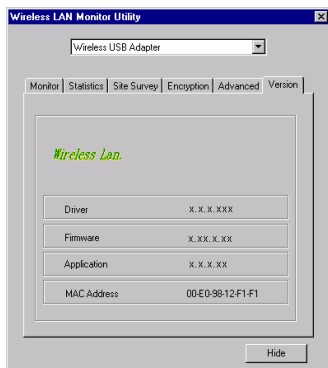


Item	Description
Preamble Type	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter.
<input checked="" type="radio"/> Long	IF in a "noisy" network environment, the Preamble Type should be set to Long .
<input type="radio"/> Short	The Short preamble is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance would be decreased.
<input type="radio"/> Auto	Select Auto for the USB adapter to select the Preamble type automatically depending on the Access Point Preamble type.

Fragmentation Threshold	To fragment MSDU or MMPDU into small sizes of frames for increasing the reliability of frame (The maximum value of 2346 means no fragmentation is needed) transmission. The performance will be decreased as well, thus a noisy environment is recommended.
RTS/CTS Threshold	This value should remain at its default setting of 2347 . Should you encounter inconsistent data flow, only minor modifications of this value are recommended.
Power Save	Check the box to allow the Adapter to go to sleep mode, during which data communication could be interrupted.
Submit	Click Submit to save the changes.
Hide	Click Hide to exit the application.

Version

You can view basic information about the Utility like the **Driver**, **Firmware** and **Application** Version. Use the **Hide** button to exit the application.



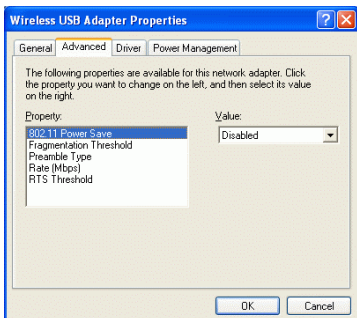
Configuration for Windows XP

USB 10/100 Network Adapter

1. Go to Start → Control Panel → Network and Internet Connections → Network Connections.
2. In Network Connections window, right-click the **Local Area Connection Enabled USB 10/100 Network Adapter** icon, and select **Properties**.
3. In **Local Area Connection Properties** window, select the **General** tab. Click **Configure** to enable Windows configuration.

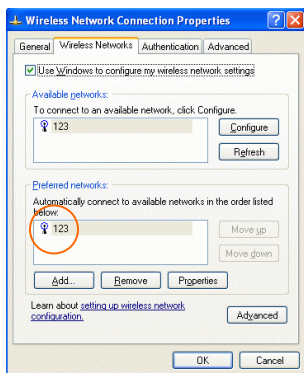
Wireless USB Adapter

1. Go to Start → Control Panel → Network and Internet Connections → Network Connections.
2. In Network Connections window, right-click the **Wireless Network Connection Enabled Wireless USB Adapter** icon, and select **Properties**.
3. In **Wireless Network Connection Properties** window, select the **Advanced** tab.



Property	Description
802.11 Power Save	Enable the function to allow the Adapter to go to sleep mode, during which data communication could be interrupted.
Fragmentation Threshold	To fragment MSDU or MMPDU into small sizes of frames for increasing the reliability of frame (The maximum value of 2346 means no fragmentation is needed) transmission. The performance will be decreased as well, thus a noisy environment is recommended.
Preamble Type ☉ Long ☉ Short ☉ Auto	<p>A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter.</p> <p>IF in a "noisy" network environment, the Preamble Type should be set to Long.</p> <p>The Short preamble is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance would be decreased.</p> <p>Select Auto for the USB adapter to select the Preamble type automatically depending on the Access Point Preamble type.</p>
Rate (Mbps)	It shows the current transfer rate. (1, 2, 5.5, or 11Mbps or Auto)
RTS Threshold	This value should remain at its default setting of 2347 . Should you encounter inconsistent data flow, only minor modifications of this value are recommended.

- In **Wireless Network Connection Properties** window, select the **Wireless Networks** tab.



☐ Use Windows to configure...

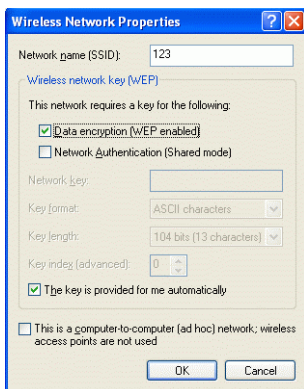
Check the box to enable Windows configuration.

Available networks

Displays all available networks.

Configure

Click the button to set up a new network or WEP configuration as illustrated as below.



Refresh

Click the button to refresh and search for all available networks.

Preferred networks

From available network(s) listed above, you can select preferred one(s) in an order that you can arrange.

The marked one is the currently used network.

Move up

Move the selected network forward one position.

Move down

Move the selected network back one position

Add...

Click the button and the **Wireless Network Properties** window will appear. In the **Network name** field, enter your desired network name listed in the above **Available networks** box, and click **OK**.

Note: The new settings will be active only after you click on OK in the **Wireless Network Connection Properties** window.

Remove

Highlight the unwanted network listed in the **Preferred networks** box, and click the button to remove it.

Properties

Highlight the network listed in the above **Preferred networks** box, and click the button to display its properties.

Once network configuration is done, make sure to click **OK**. The new parameters will be saved and active only after doing so.